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The stomach was of the same form as in the A. arvalis and A. neglecta. The liver consisted of seven distinct lobes, five

large and two smaller ones.

I have already stated that this specimen was taken at Aberarder, in Inverness-shire; and Mr. Thompson informs me, that, supposing it to be the A. riparia of Mr. Yarrell, he believes it to be the most northern British habitat for this species.

Swaff ham Bulbeck, April 26, 1841.

XXXIII.—Supplement to a Catalogue of Irish Zoophytes. By ARTHUR HILL HASSALL, Esq. Read before the Natural History Society of Dublin, November 6th, 1840.

[With Five Engravings.]

Mr. Chairman and Gentleman,

As to many of my hearers the subject of the present communication, entitled a 'Supplement to a Catalogue of Irish Zoophytes,' published in the November Number of the 'Annals and Magazine of Natural History,' may be altogether new, I propose, before entering upon the consideration of it, to make some observations on Zoophytes generally. This course will. I hope, serve both to interest my audience, as well as to relieve, in some measure, the tediousness of a mere enumeration or technical description of species, which, however valuable to science itself, possesses but little to attract or engage the attention. The most careless wanderer on the sea-shore must often have noticed the beauty and delicacy of the conformation of these interesting productions, rivalling in their purity and freshness the element which they inhabit and adorn, and have been struck with wonder and admiration at the evidence of designing care which they so remarkably exhibit even in their general appearance. Nor is the beauty and elegance so observable in their outward form diminished by a closer inspection. If the power of a microscope be applied to them, and their more intimate structure be disclosed, new beauties rell's specimen was much smaller than mine, too much stress must not be laid on this circumstance. It deserves to be noticed, however, that this specimen had a gall-bladder like the A. neylecta, small yet quite distinct, which Mr. Yarrell's had not. Hence this organ is certainly sometimes present, and at other times absent, in the same species, unless we imagine, which I conceive very improbable, that the one here described was different from his.

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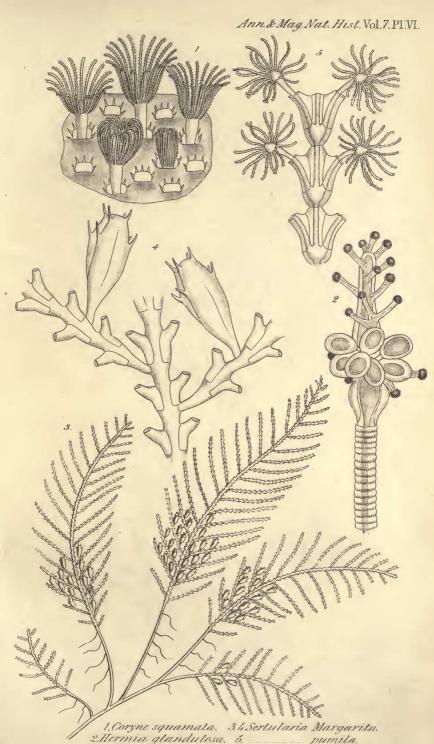
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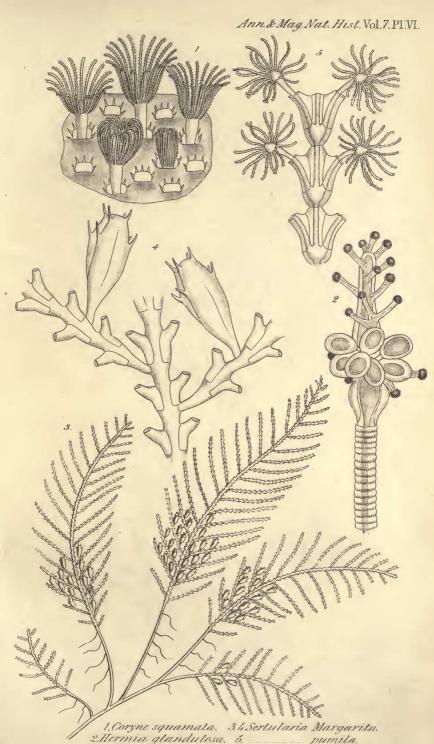
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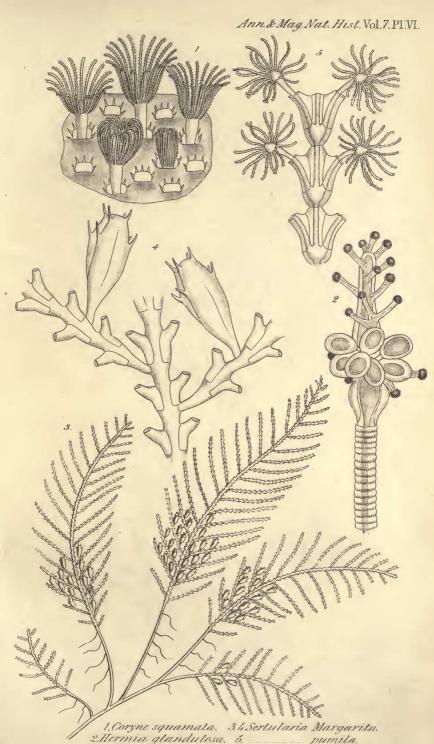
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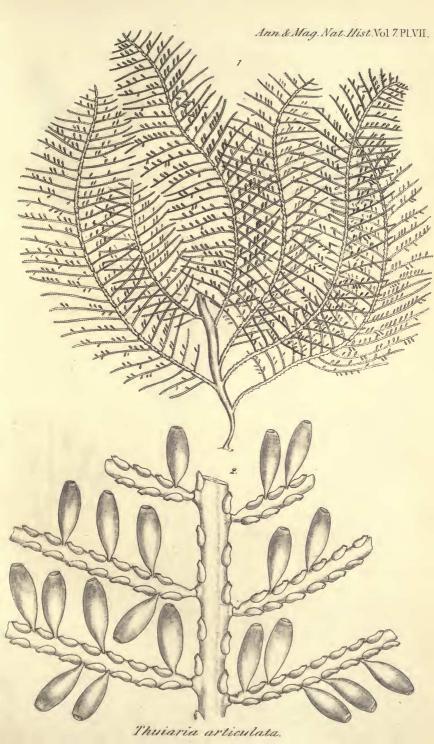


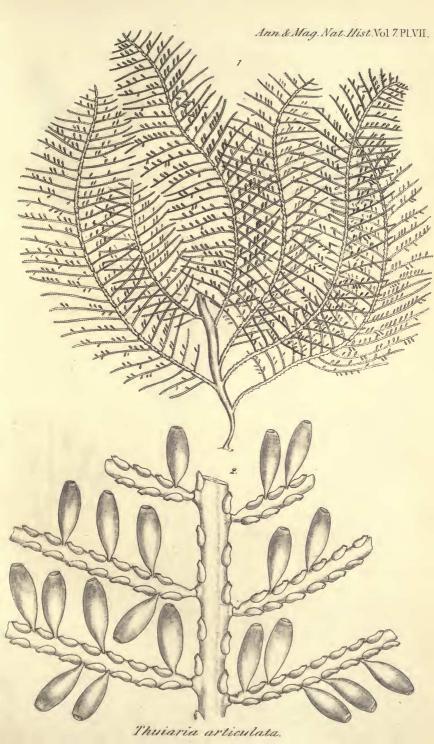


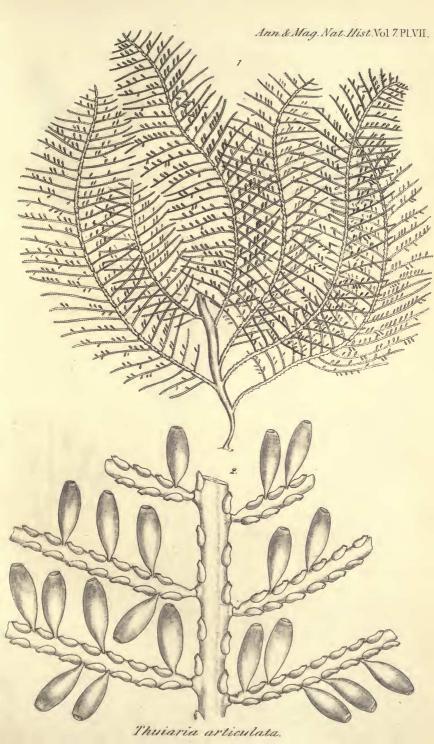








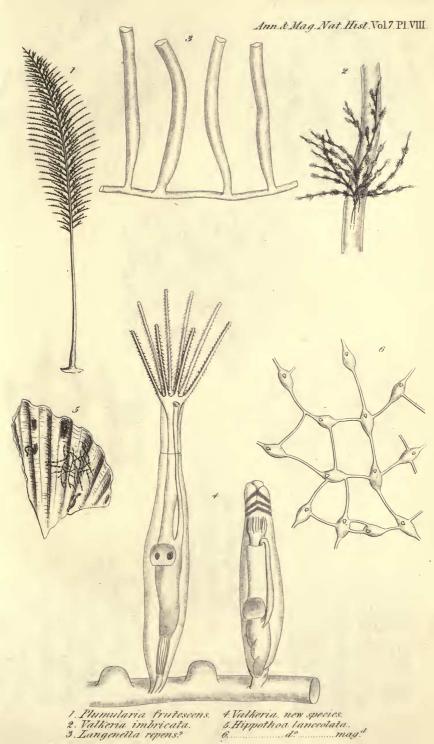


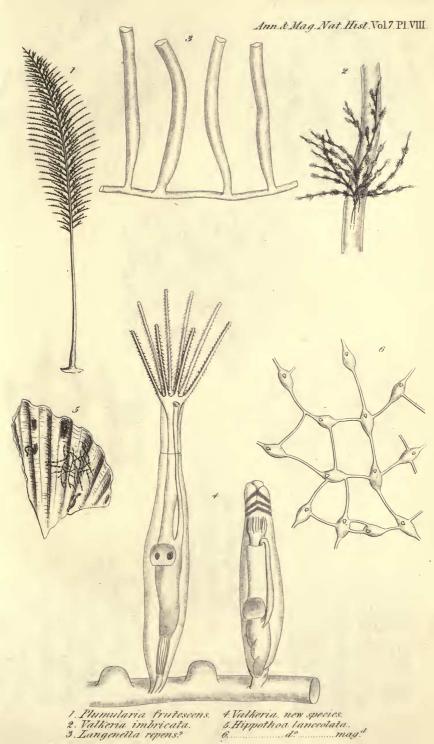


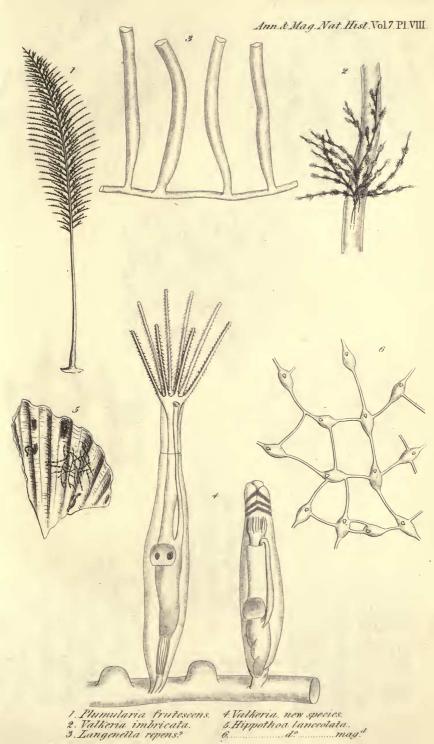








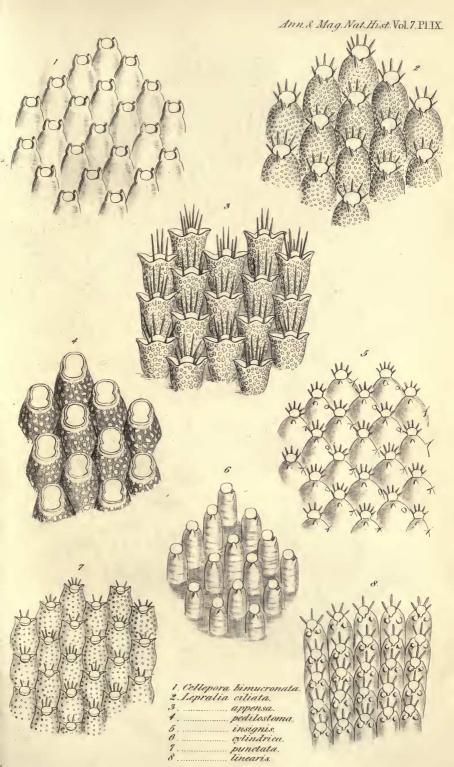


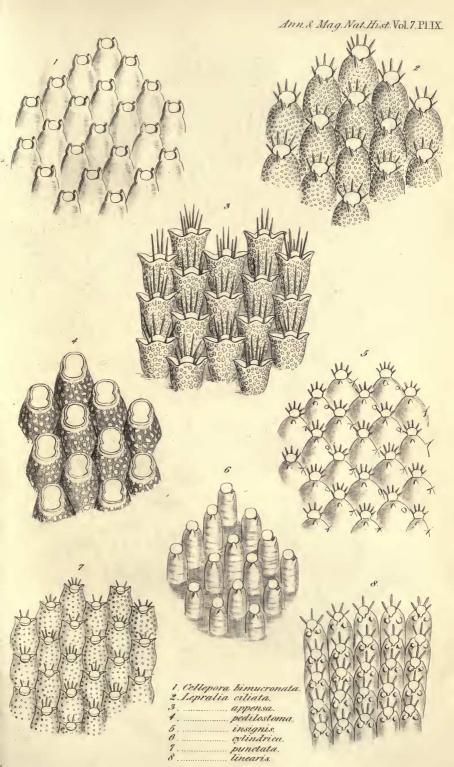


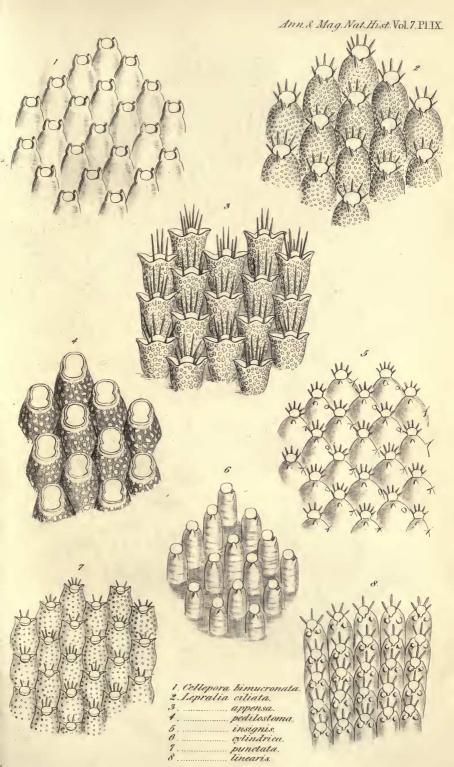








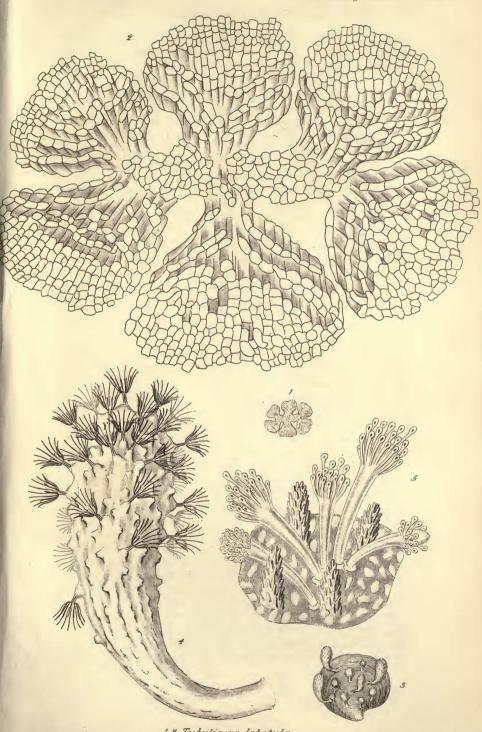






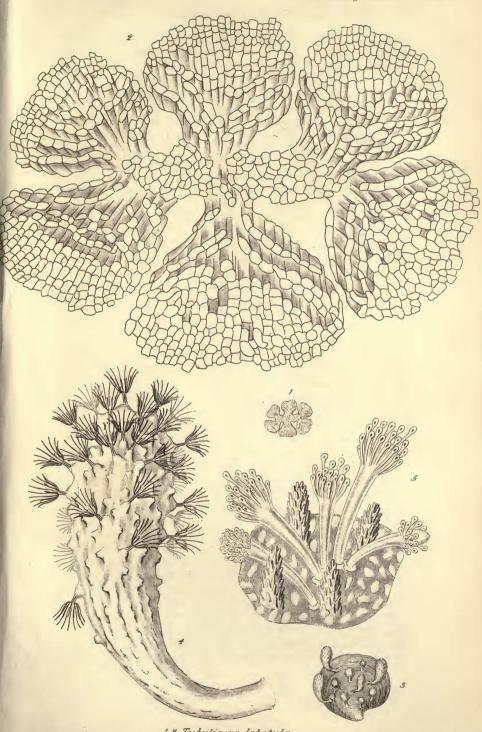






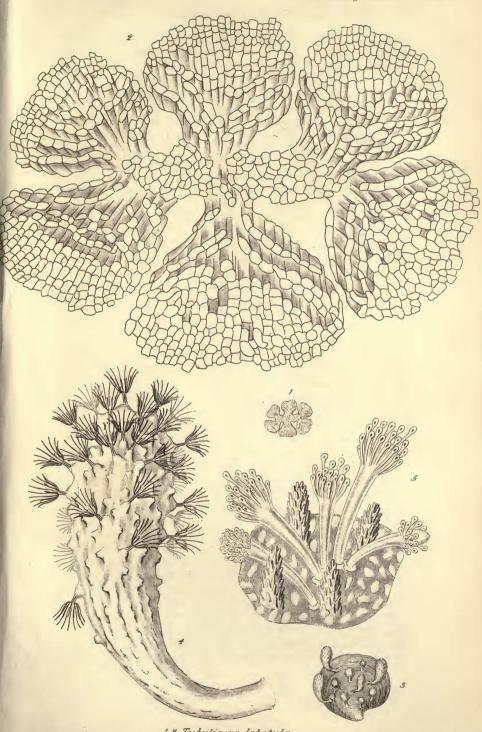
1.2. Tuhulipora lohatula 3.1. Aleyonidium hirsutum 5 Behinochorum elavigerum

J.D.C.Sowerby sculp.



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and wonders are made manifest to the admiring gaze. In this particular all natural productions differ from those of man and art, in whose works a minute examination renders apparent

defects, rudeness and deformity.

But little more than a century has elapsed since the true nature of the productions about to occupy our attention was first discovered: prior to that period various opinions were entertained respecting them. By one class of persons, and these were by far the most numerous, they were regarded as the undoubted subjects of the vegetable kingdom, and were so arranged and classified in the various systems of the most learned botanists of that day. Nor is this to be wondered at, when we consider the striking resemblances which these objects bear to vegetables, both in form and habits; some of them being eminently arborescent in their mode of growth, and being fixed by roots, either imbedded in the sand, or attached to rocks, stones and other substances, in the same manner as sea-weed, and consequently being incapable of locomotion, a character at that time considered essential to constitute an animal, being possessed in common by all the animals then known.

By a second set of persons, at the head of whom stands the name of the illustrious Linnæus, all the horny and flexible Zoophyta were considered to hold a station intermediate between the animal and vegetable kingdoms, partaking of the nature of both. The Lithophyta were, however, arranged by him in the animal kingdom, on the supposition that lime was always an animal product. "The animalcules of the Lithophyta, like the testaceous tribes," he said, "fabricated their own calcareous polypidom, forming the whole mass into tubes, each ending on the surface in pores or cells, where alone the animal seems to dwell; but the polypes of the proper Zoophyta, so far from constructing their plant like polypidoms, were, on the contrary, the productions or efflorescences of it; just as the flowers do not make the herb or tree, but are the results of the vegetative life proceeding to perfection. Polypes, according to this fancy, bore the same relation to their polypidom that flowers do to the trunks and branches of a tree; both grew by vegetation: but while the one evolved from the extremities blossoms, which shrunk not under external irritation, and were therefore properly flowers, the other put forth flowers, which, because they exhibited every sign of animality, were therefore, with reason, considered animals." In a letter to Ellis he remarks, alluding to the Zoophytes, "they are, therefore, vegetables, with flowers like small animals." In his 'Diary' he further observes, that they are "vegetables with re-

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